HAER No. KY-24

Kentucky Route 2014 Bridge Spanning the Cumberland River Pineville Bell County Kentucky

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Southeast Regional Office
National Park Service
U. S. Department of the Interior
Atlanta, Georgia 30303

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HISTORIC AMERICAN ENGINEERING RECORD

Kentucky Route 2014 Bridge

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Location:

Spanning the Cumberland River on Kentucky Route 2014,

near Pineville, in Bell County, Kentucky

UTM:

17.255250.4075120

Quad: Pineville, Kentucky

Date of Construction:

1873

Builder/Designer:

Louisville Bridge and Iron Company

Phoenix Iron Company of Philadelphia (columns, 1862)

Present Owner:

Kentucky Transportation Cabinet

State Office Building Frankfort, Kentucky 40622

Present Use:

Vehicular bridge

Significance:

The Kentucky Route 2014 Bridge is a Warren through

truss bridge that represents a very early example of

Warren construction.

Historian:

Jayne C. Henderson

The Kentucky Route 2014 Bridge over the Cumberland River in Bell County is eligible for listing in the National Register of Historic Places. It crosses the river about 0.7 mile east of the Knox County line. The bridge is located approximately 3 miles west of Pineville and approximately 12 miles east of Barbourville. The Cumberland River is part of a major drainage basin in southern Kentucky.

The Kentucky Route 2014 Bridge is a single span Warren through truss with a span length of 208 feet. Three I-beam spans, each approximately 30 feet in length, support the southern approach roadway. The northern approach is supported by two similar I-beam spans. Interior horizontal clearance is 15 feet, and vertical clearance over the deck is 22 feet 6 inches. Total length of the bridge, including approach spans, is 328 feet.

The current (May 1, 1987) structural and appraisal (SIA) rating of the existing bridge is 38.3 out of a possible 100 points, and the bridge is posted for a weight limit of 15 tons. According to information stamped on the bridge portal, the structure was built in 1873 by the Louisville Bridge and Iron Company of Louisville, Kentucky. Iron Phoenix columns used in construction of the bridge were provided by the Phoenix Iron Company of Philadelphia and were patented in 1862.

The Kentucky Route 2014 Bridge is eligible for the National Register of Historic Places as a structure of both local and statewide importance. The bridge gives an example of workmanship and design characteristics indicative of its time and place in history. The bridge, although in extremely poor structural condition, is a good example of an early Warren through truss in Kentucky. It has provided continuous service to a rural population for over a century. It is one of only two bridges in Kentucky constructed by the Louisville Bridge and Iron Company.

Most of the 70 historic bridges contained in A Survey of Truss, Suspension, and Arch Bridges in Kentucky are metal trusses which represent variations of the two most popular forms of truss, Pratt and Warren. Pratt trusses represented approximately 31 percent of the total 651 bridges surveyed for historical significance. The Warren truss was the second most common type, representing approximately 17 percent. Widespread bridge construction in Kentucky began in the last part of the 19th century. It was during this time that the Pratt and Warren trusses accounted for the majority of bridge design. Thus, the Kentucky Route 2014 Bridge represents a very early example of Warren construction.

The unique top chord on the Kentucky Route 2014 Bridge are sectional, eight-sided, tubular cast iron columns bolted at each panel point. The unusual floor system has pin-connected truss floor beams for lighter weight and greater strength. The bridge has sysbar diagonals and verticals that act in tension but not compression, a characteristic of some early Warren through trusses.